REMARKS

In the Office Action dated November 30, 2004, claims 17-19, 37, and 38 were rejected under 35 U.S.C. § 102 over U.S. Patent No. 6,035,434 (Sazzad); claims 1, 3, 4, 13, and 34 were rejected under § 103 over U.S. Patent Application Publication No. 2004/0062274 (Hakansson); and claims 30-33, 35, 36, and 39-41 were rejected under § 103 over Hakansson in view of U.S. Patent No. 6,084,865 (Dent).

Applicant acknowledges the allowance of claims 5-12, 14-16, and 20-29.

Claim 1 was rejected as being obvious over Hakansson. It is respectfully submitted that a *prima facie* case of obviousness has not been established against claim 1 over Hakansson. Hakansson does not disclose or suggest interleaving *speech* data according to a first algorithm over plural frames for a first set of *speech* data, and interleaving *speech* data according to a *second* algorithm over plural frames for a second set of *speech* data. Hakansson describes a single interleaving scheme for speech data—diagonal interleaving. *See* Hakansson, ¶¶ [0011], [0018], [0021], [0057], [0064], claim 2. In Hakansson, a different interleaving scheme is applied to certain SID frames (which cannot be considered speech data). Hakansson, ¶ [0027].

As conceded by the Office Action, Hakansson does not disclose interleaving speech data according to a second algorithm for a second set of speech data. 11/30/2004 Office Action at 4. Nevertheless, the Office Action stated that claim 1 is obvious over Hakansson in light of the fact that Hakansson discloses SID frames being interleaved according to a different interleaving algorithm. *Id.* at 5. The Office Action stated that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the interleaving schemes of Hakansson such that the second interleaving scheme called block interleaving scheme that applies to the SID frames is being used as a second algorithm to interleave speech data such as the block interleaving scheme disclosed in Hakansson." *Id.*

Applicant respectfully disagrees that there is any teaching or suggestion in Hakansson, whether implied or explicit, of a modification of the techniques used in Hakansson to apply the second interleaving algorithm to speech data rather than to SID frames. In ¶ [0018] of Hakansson, Hakansson states that applying a common interleaving scheme for SID and speech frames poses problems. To overcome these problems, Hakansson proposes a different interleaving algorithm for SID frames than for speech frames. However, there is absolutely no

teaching or suggestion whatsoever in Hakansson of any need or desirability to use different algorithms for different sets of speech frames. Although a person of ordinary skill in the art looking to the teachings of Hakansson would have recognized some benefits of using a second algorithm for SID frames, such a person of ordinary skill in the art looking to the teachings of Hakansson would not have been motivated to modify the Hakansson techniques to use different algorithms for different sets of speech data, as recited in claim 1.

If a reference existed that would have suggested a modification of Hakansson to achieve the claimed invention, Applicant respectfully requests the production of such a reference. Absent a reference that establishes a teaching or suggestion to modify Hakansson to achieve the claimed invention, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 1 and its dependent claims.

Independent claim 34 is similarly allowable over Hakansson. The Office Action has also failed to establish a *prima facie* case of obviousness against claim 34 (and its dependent claims) over Hakansson.

Claims 30 and 35 have been cancelled, without prejudice, to render the rejection of those claims moot. However, claims 39 (which depended from cancelled claim 30) has been amended from dependent form to independent form, with the scope of the claim remaining *unchanged*. Similarly, claim 41 (which depended from cancelled claim 35) has been amended from dependent form to independent form, with the scope of the claim remaining *unchanged*. In claim 41, the term "sending" has been replaced with "send" at line 14—this amendment corrects a grammatical error and does not change the scope of the claim.

Each of claims 39 and 41 was rejected as being obvious over Hakansson in view of Dent. It is respectfully submitted that claim 39 is not obvious over Hakansson and Dent for at least the following reason: the references when combined do not teach or suggest all elements of claim 30. *See* MPEP § 2143 (8th ed., Rev. 2), at 2100-129.

As conceded by the Office Action, the multiplexing feature of claim 39 is not disclosed by Hakansson. The Office Action relied, instead, upon Dent for this teaching. Claim 39 further recites receiving a request from the first mobile station to re-acquire the wireless channel portion, where the request is transmitted by the first mobile station in response to the first mobile station exiting a discontinuous transmission mode. Claim 39 also recites sending an assignment

message to the first mobile station to assign the wireless channel portion in response to the request. The Office Action cited ¶¶ [0028] and [0084] of Hakansson as teaching the request receiving and assignment sending acts of claim 39. However, Applicant respectfully disagrees with this assertion in the Office Action, since ¶ [0028] refers to the transmission of first and second types of SID frames during source data inactivity, and transmitting a third type of SID frame to indicate a transition from source data inactivity to source data activity. ¶ [0084] of Hakansson describes that when an inactive link resumes speech transmission, a codec mode corresponding to the last received codec mode request is selected. Neither of these passages of Hakansson refers to receiving a request from a mobile station to re-acquire a wireless channel portion in response to the first mobile station exiting this continuous transmission mode, and in response to the request, sending an *assignment* message to the first mobile station to assign the wireless channel portion.

Therefore, even if Hakansson and Dent can be properly combined, the hypothetical combination of Hakansson and Dent does not teach or suggest *all* elements of claim 39 (and its dependent claims).

Independent claim 41 is not obvious over the asserted combination of Hakansson and Dent for similar reasons.

Claim 17 has been cancelled to render the rejection of the claim moot. However, claim 38 has been amended from dependent form to independent form, with the scope of the claim remaining *unchanged*. Claim 38 recites a controller to process a first data frame n, n being an even number, from the half-rate mobile station interleaved over plural bursts according to a first algorithm and to process a second data frame n + 1, n + 1 being an odd number, from the half-rate mobile station interleaved over plural bursts according to a second algorithm, where the first data frame n is interleaved according to the first algorithm *in response to n being an even number*, and the second data frame is interleaved according to the second algorithm *in response to n + 1 being an odd number*.

In contrast, Sazzad discloses an interleaving scheme that does not depend on n being an even number and n + 1 being an odd number, as recited in claim 38. The interleaving scheme of Sazzad is defined in column 3, at line 38. The interleaving scheme of Sazzad is a "backward-looking approach" as depicted in Fig. 4 of Sazzad, where two FEC frames are used as

sources for a data block which is built on a bit-by-bit basis. Sazzad, 3:64-66. According to the equation at line 38 in column 3 of Sazzad, the jth bit in the Bth block contains a source bit $c(n(B,j), k(B,j))$ that is the $k(B,j)^{th}$ bit in the $n(B,j)^{th}$ FEC coded speech frame. In other words, Sazzad proposes starting with a particular block (the Bth block), and filling in bits of the Bth block using bits from two different FEC coded speech frames, as depicted in Fig. 4. The interleaving of Sazzad does not use two different algorithms that depend upon n (for frame n) being an even number, and n + 1 (for frame n+1) being an odd number, as recited in claim 38— instead, the interleaving of the coded speech frames of Sazzad depend on bit positions of the Bth block.

Therefore, claim 38, and its dependent claims, are allowable over Sazzad.

In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (NRT.0072US).

Respectfully submitted,

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